

Attorney Docket: 27225U
Serial No.: Not Yet Assigned
Page 1

ATTACHMENT A

Claims 1-71 (canceled)

72. (new) A vector comprising:

a DNA sequence derived from HHV-6 or HHV-7, said DNA sequence comprising an origin of replication, a cleavage and packaging signal and a promoter sequence which induces expression of at least one nucleic acid sequence product in a lymphocyte cell host;

wherein said vector is adapted to induce an immune response upon administration thereof to a mammal.

73. (new) The vector of Claim 72, wherein the vector is replication defective, enabling formation of concatamers of said vector.

74. (new) The vector of Claim 72, wherein said DNA sequence is amplicon-6.

75. (new) The vector of Claim 72, wherein said DNA sequence is Tamplicon-7.

76. (new) The vector of Claim 72, wherein the vector is packaged in a virion particle.

77. (new) The vector of Claim 72, wherein, said immune response is elicited against an amino acid product encoded by the DNA sequence of Claim 72 or fragments thereof.

ATTACHMENT A

78. (new) The vector of Claim 72, comprising at least one foreign nucleic acid sequence.

79. (new) The vector of Claim 78, wherein at least part of the product expressed by the foreign nucleic acid sequence is targeted to the cell membrane.

80. (new) The vector of Claim 79, wherein at least part of the product expressed by the foreign nucleic is secreted outside of the cell.

81. (new) The vector of Claim 79, wherein the foreign nucleic acid sequence is selected from sequences coding cellular GFP and B-gal markers, HSV-1 glycoprotein D (gD), gDsec, HIV-1 gp160, REV, tumor antigens, MUC1, Prostate Specific Antigen (PSA), Her-2 (neu) antigen, adjuvant genes, interleukines, cytokines and chemokines.

82. (new) A method for eliciting an immune response in a mammal, said method comprising:

- (a) providing a vector of Claim 72; and
- (b) introducing said vector into the body of said mammal;
- (c) wherein said introduction results in an immune response in said mammal.

83. (new) The method of Claim 82, further comprising:

ATTACHMENT A

- (a) providing a helper virus; and
- (b) introducing said helper virus into the body of said mammal.

84. (new) The method of Claim 83, wherein providing the helper virus is by providing a cell comprising a helper virus.

85. (new) A method according to claim 82, wherein said introduction step (b) comprises:

- (a) introducing said vector into lymphotropic cells; and
- (b) introducing said lymphotropic cells into said mammal.

86. (new) The method of Claim 82, wherein the vector comprises at least one foreign nucleic acid sequence and the immune response is against the protein product encoded by said foreign nucleic acid sequence.

87. (new) The method of Claim 85, wherein the lymphotropic cells are selected from dendritic cells (DC), T cells and B cells and any combination thereof.

88. (new) The method of Claim 85, further comprising:

- (a) providing a helper virus; and
- (b) introducing said helper virus into the body of said mammal.

89. (new) Mammalian cells comprising a vector of Claim 72.

ATTACHMENT A

90. (new) The mammalian cells of Claim 89, further comprising a helper virus.

91. (new) The mammalian cells of Claim 89, comprising lymphotropic cells selected from dendritic cells (DC), T cells and B cells and any combination thereof.

92. (new) A method of producing mammalian cells capable of producing a product of a nucleic acid sequence of interest, comprising:

- (a) providing a vector comprising a foreign nucleic acid sequence of interest according to Claim 78;
- (b) providing lymphotropic cells that are compatible for transplantation in said mammal; and
- (c) introducing said vector to said mammalian cells;

such that said mammalian cells become capable of producing a product of said foreign nucleic acid sequence of interest.

93. (new) The method of Claim 92, further comprising:

- (a) providing a helper virus; and
- (b) introducing said helper virus to said mammalian cells.

94. (new) A method of producing a desired protein comprising:

- (a) providing a vector of Claim 78, wherein the foreign nucleic acid sequence encodes the desired protein;

ATTACHMENT A

- (b) providing mammalian cells;
- (c) introducing said vector to said mammalian cells; and
- (d) providing culture conditions;

such that the mammalian cells produce said desired protein.

95. (new) The method of Claim 94, wherein the desired protein is selected from cellular GFP and B-gal markers, HSV-1 glycoprotein D (gD), gDsec, HIV-1 gp160, REV, tumor antigens, MUC1, Prostate Specific Antigen (PSA), Her-2 (neu) antigen, adjuvant genes, interleukines, cytokines and chemokines.

96. (new) The method of Claim 94, wherein said mammalian cells are lymphotropic cells.

97. (new) A Concatameric vector comprising repeats of a DNA sequence derived from HHV-6 or HHV-7, said DNA sequence comprising an origin of replication, a cleavage and packaging signal and a promoter sequence which induces expression of at least one nucleic acid sequence product in a lymphocyte cell host, wherein said Concatameric vector is adapted to induce an immune response in a mammal upon administration thereof to said mammal.

98. (new) The Concatameric vector of Claim 97, comprising at least one foreign nucleic acid sequence.

ATTACHMENT A

99. (new) A method of eliciting an immune response in a mammal comprising administration of the Concatameric vector of Claim 97 to said mammal.

100. (new) A method of producing concatameric DNA vectors, comprising:

- (a) providing replication defective vector of Claim 73;
- (b) providing mammalian cells;
- (c) introducing said replication defective vector to said mammalian cells; and
- (d) providing culture conditions;

such that the mammalian cells produce concatameric DNA vectors.

101. (new) A method of producing virions comprising a vector, said method comprising:

- (a) providing a vector of Claim 72;
- (b) providing mammalian cells;
- (c) introducing said vector to said mammalian cells;
- (d) providing culture conditions;

such that virions are produced by said mammalian cells.

102. (new) A method for eliciting an immune response in a mammal, said method comprising:

ATTACHMENT A

- (a) providing a Concatameric vector of Claim 97; and
- (b) introducing said Concatameric vector into the body of
said mammal;

wherein said introduction results in an immune response in
said mammal.

103. (new) The method of Claim 102, comprising:

- (a) providing a helper virus; and
- (b) introducing said helper virus into the body of said
mammal.

104. (new) A method for eliciting an immune response in a
mammal, said method comprising:

- (a) providing a virion of Claim 76; and
- (b) introducing said virion into the body of said mammal;

wherein said introduction results in an immune response in
said mammal.

105. (new) A pharmaceutical composition comprising a
pharmaceutically acceptable carrier and an effective amount of
an active agent selected from:

- (a) the vector of Claim 72;
- (b) the mammalian cells of Claim 89;
- (c) the Concatameric vector of Claim 97; and

Attorney Docket: 27225U
Serial No.: Not Yet Assigned
Page 8

ATTACHMENT A

(d) the virion of Claim 76.